# NPDES
# INSPECTION REPORT

## DRINKING WATER TREATMENT FACILITY
## PIERCE, IDAHO

October 20, 2011

Prepared by:
Jerry W. Shaffer
Lewiston Regional Office
Idaho Department of Environmental Quality

Table of Contents

(Unless otherwise noted, all details in this inspection report were obtained from conversations with Mr. Eric Mason, wastewater treatment plant operator)

## I. Facility Information

| | |
|---|---|
| Facility Name: | City of Pierce, ID Drinking Water Treatment Plant (Facility) |
| Facility Type: | Drinking Water Treatment Plant |
| Facility Location: | The facility is located approximately ¼ mile north of Highway 11 on Canal Street<br>Pierce, ID 83546<br>Latitude: 46° 29' 42' N<br>Longitude: 115° 47' 48" W |
| Mailing Address: | P.O. Box 356<br>Pierce, ID 83546 |
| Facility Contacts: | Eric Mason, Operator |
| Facility Numbers: | Ph: (208) 464-2222<br>Fax: (208) 464-2207 |
| Permit Number: | ID-002089-3 |
| Permit Status: | Permit became effective on November 1, 2006 and expired on October 31, 2011. The permit reapplication was submitted to EPA in June 2011. |
| SIC Code: | 4941 |

## II. Inspection Information

| | |
|---|---|
| Inspection Date/Time: | October 20, 2011 9:39 AM to 2:17 PM |
| Inspectors: | Jerry Shaffer (Idaho Department of Environmental Quality, Lewiston Regional Office) |
| Weather: | Partly cloudy and warm |
| Purpose: | Determination of compliance with the NPDES Permit and the Clean Water Act |

## III. Inspection Entry

This was an announced inspection. The operator of the Facility was contacted by phone on October 18, 2011 and the time and date of the inspection was set.

I arrived at City Hall at 9:39 AM and met with Eric Mason, the onsite operator.

I discussed the purpose of the visit with Mr. Mason prior to the inspection. I was not denied access to the Facility.

I was accompanied throughout the inspection by Mr. Mason.

## IV. Inspection Chronology

On October 20, 2011, the inspection began with an entry interview, followed by a file review and tour of the Facility. The Facility tour included an inspection of the treatment unit operations and a review of the sample collection and analytical procedures at the onsite laboratory. As part of the file review, the Facility's quality assurance plan (QAP), the operations and maintenance (O&M) plan and discharge monitoring reports (DMRs) are reviewed. According to Mr. Mason, he is the certified operator responsible for sample collection, onsite analysis and filling out the DMRs.

The inspection then concluded with an exit interview where I pointed out the areas of concern I observed during the inspection.

## V. Owner and Operator Information

The Facility is currently owned and operated by the City of Pierce, Idaho.

## VI. Background

The permit authorizes the Facility to discharge to Canal Creek through outfall 001. The Facility has a design flow of 0.036 million gallons per day (MGD) and an existing average daily flow of 0.018 MGD. The Facility services a population of approximately 618.

## VII. Waste Management Process

The Facility consists of a solids settling basin and discharge to Canal Creek. Solids from the clarifier are diverted to sludge drying beds, dried, and stored onsite.

At the time of inspection, all treatment units were operational. See Attachment A for photo documentation of the units.

## VIII. Facility Sample Collection and Analyses

The sample collection and analyses duties at the Facility are conducted by Mr. Mason. Mr. Mason is the certified operator responsible for sample collection, onsite analysis, and filling out the DMRs. Mr. Mason submits the DMRs to the mayor for signing, and then submits them to EPA.

The parameters analyzed onsite include temperature, turbidity, flow, and total residual chlorine (TRC).

Samples quantifying total suspended solids (TSS) are analyzed by an outside laboratory (i.e. City of Orofino wastewater treatment plant laboratory in Orofino, Idaho).

## IX. Areas of Concern

This inspection included a review of the treatment system, the sample collection and analyses procedures, and documentation required by the Permit. During the course of this inspection, I observed and identified the following areas of concern:

A. Effluent Limitations and Monitoring: Part I.B of the Permit specifies that the permittee remain in compliance with average monthly and maximum daily total chlorine residual concentrations and average monthly and maximum daily total chlorine loading limits. The operator stated in the interview that until July 2011, he had been measuring free chlorine instead of total chlorine. Note that even at these under reported values, the permittee has consistently exceeded chlorine limits set forth in the permit.

The permittee was also required to sample for Total Trihalomethanes (TTHMs) annually for the first three years of the permit. The operator stated in the interview that he had never sampled for these constituents.

The permittee was also required to sample for metals annually for the first three years of the permit. The operator stated in the interview that he believed he had sampled for metals all five years of the permit. An inspection of the laboratory reporting sheets showed that the media sampled was drinking water, that the sample location was within the drinking water system, and that the list of metals sampled for did not match those contained in the permit. The permittee also did not submit annual metal sample results to EPA.

Finally, the permittee is required to report within 24 hours any violation of the maximum daily limits for chlorine. During the interview, the operator stated that he was unaware of this requirement and had made no such reports even though the maximum daily chlorine limit had been violated repeated.

B. Total Chlorine Residual Schedule of Compliance: Part I.C of the Permit specifies that the permittee must achieve compliance with the total chlorine residual limitations of Part I.B (Table 1), by November 1, 2009. Also, until compliance with the effluent limits is achieved, the permittee must submit an annual Report of Progress which outlines the progress made towards reaching the compliance date for the chlorine effluent limitation. The annual Report of Progress must be submitted in November of each year. The first report is due by November 1, 2007 and every 12 months thereafter, until compliance with the chlorine effluent limits is achieved. As a minimum, the Report of Progress must include:

a) An assessment of the previous 12 months of chlorine data and a comparison to the effluent limitations.

b) A report on progress made towards meeting the effluent limitations.

c) Further actions and milestones targeted for the upcoming 12 months.

The results from the DMRs indicate that the permittee has not met the total chlorine residual limitations of Part I.B (Table 1). The operator, when asked for, could not produce any annual Reports of Progress.

C. Quality Assurance Plan (QAP): Part II.A of the Permit specifies that the permittee develop and implement a quality assurance plan (QAP) within 180 days of the effective date of the permit (April 30, 2007). At a minimum, the QAP must include the following:

a. Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantification limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
b. Map(s) indicating the location of each sampling point.
c. Qualification and training of personnel.
d. Name(s), address(es) and telephone number(s) of laboratories, used by or proposed to be used by the permittee.

In addition, the permittee must use the EPA approved quality assurance/quality control (QA/QC) and chain-of-custody procedures described in EPA's Requirements for Quality Assurance Project Plans, EPA-QA/R-5 and Guidance for Quality Assurance Project Plans, EPA QA/G-5. The City was unable to locate a QAP for the wastewater treatment plant.

D. Best Management Practices Plan: Part II.B of the permit specifies that the permittee develop and implement a Best Management Practices Plan to prevent or minimize the generation and potential for the release of pollutants, within 180 days of the effective date of the permit (April 30, 2007). At a minimum the permittee must provide the following:

1) Purpose
2) Development and Implementation Schedule
3) Documentation
4) Objectives
5) Elements of the BMP Plan
6) BMP Plan Modification

During the interview the operator stated that the City had not developed a BMP Plan.

E. Records Contents: Part III.E of the Permit specify that the permittee to include the following information on records:

1) the date, exact place, and time of sampling or measurements;
2) the name(s) of individual(s) who performed the sampling or measurements;
3) the date(s) analyses were performed;
4) the names of the individual(s) who performed the analyses;

5) the analytical techniques or methods used; and
6) the results of such analyses.

A review of the records showed that the sample location was not included on the sampling sheet and that analytical methods used were not reported on the lab data sheets.

F. Reporting: Parts III.B and V.E of the Permit specify that the permittee must summarize monitoring results each month on the DMR, and sign and certify that the DMRs are true, accurate and complete. At the time of the inspection, the December 2010 DMR was reviewed along with the corresponding analytical data (i.e. operator's daily log book, certificate of analysis, chain of custody form, etc.). The permittee used the average monthly flow to calculate loadings. In addition, the City submitted the December 2010 DMR using free chlorine residual instead of total chlorine residual. See Section IX.A for further information regarding the use of free chlorine residual versus total chlorine residual. Consequently, the City failed to submit complete and accurate DMRs pursuant to Parts III.B and V.E of the Permit.

F. Twenty-four Hour Notice of Noncompliance Reporting: Part III.G of the Permit specifies the permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:

a. any noncompliance that may endanger health or the environment;
b. any unanticipated bypass that exceeds any effluent limitation in the permit (See Part IV.F., "Bypass of Treatment Facilities");
c. any upset that exceeds any effluent limitation in the permit (See Part IV.G., "Upset Conditions"); or
d. Any violation of a maximum daily discharge limitation for applicable pollutants identified by footnote in 2 in Table 1.

Mr. Mason stated that the City does not provide notification to EPA within 24 hours of the occurrence of the above situations. In addition, the operator stated that the City does not provide written notification of the above violation as required in Part III.G.a.

## X. Additional Observations

A. Retention of Records: Part II.F of the Permit specifies that non-sludge related records shall be retained for a period of at least five years (or longer as required by 40 CFR 503). During the inspection, Mr. Mason was repeatedly unable to locate records, reports, lab sheets and other information that was required to be retained on record and to be made available to the inspector upon request.

## XI. Inspection Sampling

Samples were not collected by EPA at the time of this inspection.

Report Completion Date: December 19, 2011

Lead Inspector Signature: Jerry W. Shaffer

ATTACHMENT A

Aerial Photographs

City of Pierce, Idaho
Drinking Water Treatment Facility

(October 20, 2011 Inspection)


Aerial photograph of the wastewater treatment plant in Pierce, Idaho.


Aerial photograph of the wastewater treatment plant in Pierce, Idaho.

ATTACHMENT B

Photograph Documentation

Drinking Water Treatment Facility
Pierce, Idaho
(October 20, 2011 Inspection)


Pierce Drinking Water Treatment Plant laboratory facilities (photo 1). Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.


Pierce Drinking Water Treatment Plant laboratory facilities (photo 2). Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.

Pierce Drinking Water Treatment Plant laboratory facilities (photo 3). Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.

Pierce Drinking Water Treatment Plant backwash settling pond (photo 1). Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.

Pierce Drinking Water Treatment Plant backwash settling pond (photo 2). Photo by Jerry W. Shaffer (DEQ) on October 20, 2011.